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## Livestock Handling

This is a good time to do some planning for an improved livestock handling system. Start by recalling the last time you handled livestock. What kind of problems did you have? Did you have a problem getting them into your handling system? Were there places the cattle balked as they traveled through the system? Did they escape at some point? Did they trip on something? Did you have to resort to calling in extra help to persuade them to go through the system, or did you have to resort to using a hot shot? If you had some of these problems, you might benefit from making some changes to your system. When evaluating a system talk to the people pushing livestock to the chute. They may have a different perspective than you do at the squeeze chute.

**If the livestock are reluctant to come into the system in the first place,** you might look at where they start to balk. Livestock will come into a system easier if there is a corner where they enter it. I have seen many systems where the gate is in the center of a fence. This makes it much harder to get livestock to enter the system. Livestock don't like contrast such as going from light to dark places. Using diffused lighting to light the area might help get them to move into it.

**Once in the system, were there places where livestock balked?** Walk through the system and look carefully at the exact locations where livestock balk. Take a critical look at the system from the perspective of the livestock. Things like shadows, reflections off puddles of water, loud noises, incorrect gate placement, etc. can be the cause. Shadows and reflections may occur only at certain times of the day when the sun is at a particular position, so take that into consideration. Livestock may also balk if they are moving toward the sun.

**Did the livestock trip or slip?** Again, you may need to get into the system to discover any problems. Remove any hazards that might cause them to trip.

Temple Grandin has done much of the work in livestock handling in this country. She has developed audits for various types of facilities to determine what problems are occurring. For beef facilities, the following are items she suggests watching for:

- Percentage that do not slip or fall
- Percentage that do not run into fences
- Percentage moved at a walk or trot
- Percentage of cattle moved with no electric prod

Grandin suggests one percent or less falls and three percent or less slips when you evaluate a handling facility. She also suggests twenty-five percent or less prodded. You can find more of Temple's work at her web site at: <http://www.grandin.com/>

An adequate handling system may allow you to take advantage of new technologies such as timed AI. Improved herd health may be an additional benefit.

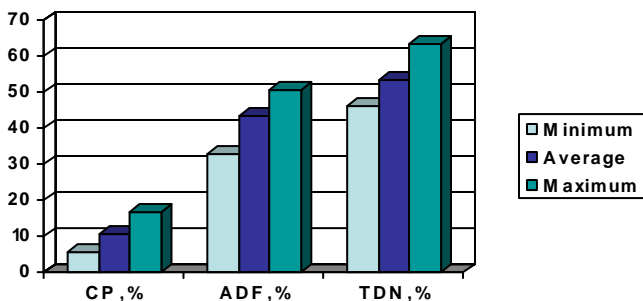
Authors: Don Day, Natural Resource Engineer, Gene Schmitz, Livestock Specialist

## Do You Know What Your Livestock Are Eating? Do You Care?

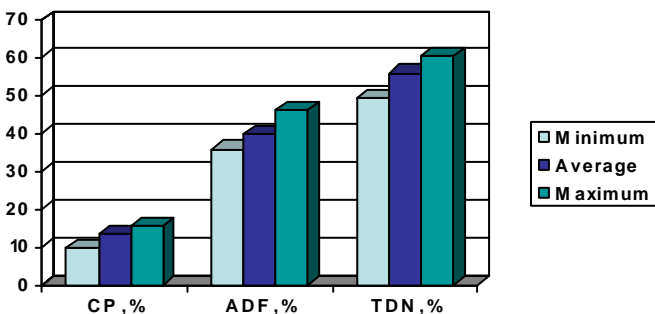
A challenge of feeding forages (either hay or pasture) is that their nutrient content varies widely. Most grains will vary a little nutritionally, but one can usually count on the fact that #2 yellow corn is #2 yellow corn. Not so with hay, it can vary over ten percentage points (5% to 18%) in crude protein levels between low quality hay and high quality hay and energy levels can vary just as much.

In the years 2004 to 2006, twenty-one samples of grass and grass/legume mix hay results were summarized by Wendy Flatt and Gene Schmitz, Extension Livestock Specialists in the central Missouri Extension region. As you can see in the graphs below, there is a huge variation in nutritional quality between grass and grass/legume mixed hay.

**Table 1. 2004-2006 Grass Hay on 100 % Dry Matter Basis**



**Table 2. 2004-2006 Grass-Legume Hay on 100% Dry Matter Basis**



Highlights from this data include:

- 9 of 21 (43%) grass samples had greater CP than minimum grass/legume mix
- 4 of 21 (19%) grass samples met or exceeded average CP of grass/legume mix
- 13 of 21 (62%) grass samples had greater TDN than minimum grass/legume mix
- 5 of 21 (24%) grass samples had greater TDN than average grass/legume mix

These points emphasize the importance of testing forages. They also show the importance of timing of harvest. Hay testing laboratories are listed at: [http://agebb.missouri.edu/haylst/t\\_labs.htm](http://agebb.missouri.edu/haylst/t_labs.htm)

Livestock producers can do a visual appraisal of their hay, which can help sort out some of the really poor quality hay from the average quality hay, but getting it analyzed is fairly cheap (costing \$12.00 to \$20.00) and can give a much clearer picture of the nutritional quality of the hay. This can save money in the long run.

Send your hay analysis to your local livestock specialist for assistance in interpretation. MU Extension Livestock Specialists can also best match the goals you have for your livestock as well as the nutrients needed to reach those goals. So before writing that check for hay, make sure you are buying what you think you are—it can be a buyers beware market. Ask the seller for a forage analysis.

Author: Wendy Flatt, Livestock Specialist

Horse owners should do a little homework before purchasing hay because this could ultimately save a lot of money, which is even more critical right now.

There are several web resources horse owners can use to read the hay analysis once they get it back from the lab, which include:

- <http://agbiopubs.sdstate.edu/articles/ExEx4002.pdf>
- [http://ohioline.osu.edu/b762/b762\\_21.html](http://ohioline.osu.edu/b762/b762_21.html)
- <http://www.canr.uconn.edu/ansci/ext/hayanalysis.htm>

## Missouri Honey Bees May Be In Trouble

Honey bees produce the honey we use for food, and collect pollen used in cosmetics, food supplements and drugs. More important is the pollination of many fruits, vegetables and crops.

Late last year eastern US bee keepers reported the unusual disappearance of honey bees from hives. This problem has grown to affect thousands of hives in states all across the US and some Provinces in Canada.

This spooky disorder is, at least tentatively, known as "Colony Collapse Disorder or CCD". The original try at a name was "Fall Dwindle Disease". It is not yet known if this is a disease.

Typically when honey bees settle down for the winter, they stay put. Bee keepers can usually tell if there

is a problem if they find dead bees outside the hive. Honey bees are good house keepers and will clean dead bees from the hive. Not so with CCD. There are no dead bees inside or outside the hive. See what I mean when I say “spooky”.

Local bee keepers should check their hives now! Our recent icy, snowy and cold weather may have kept keepers away from their hives. Now there is a really important reason to check them.

While the cause of CCD is not known, there are several possible culprits including fungal, viral and bacterial diseases, pesticides, parasites and immunosuppression. It may be a combination of several factors which may characterize this as a syndrome.

Richard Houseman, MU Entomologist, has shared a list of symptoms.

The collapse of a colony of honey bees can be characterized by any one of the following:

1. Complete absence of adult bees in colonies, with no or little build-up of dead bees within or in front of the colonies
2. Presence of capped brood in colonies
3. Presence of food stores, both honey and bee pollen:
  - a. which is not immediately robbed by other bees
  - b. when attacked by hive pests such as wax moth
  - c. small hive beetle, the attack is noticeably delayed.

**Early symptoms** that may be seen before the final colony collapse are:

1. Insufficient workforce to maintain the brood that is present
2. Workforce seems to be made up of young adult bees
3. Queen is uncharacteristically evident outside the hive
4. The colony members are reluctant to consume provided feed, such as sugar syrup and protein supplement.
5. It looks like the honey bees become sick or are repelled from the hive and just fly away.

A working group has been formed. Bee keepers are asked to fill out a survey even if there are no symptoms of CCD in their hives. It is hoped that comparing healthy to diseased hives may aid with an answer. The survey can be found at: <http://www.beesurvey.com>

If problems are seen, Mike Brown, state entomologist, should be contacted with the details. The more information we have on this disorder, the quicker a solution may be found.

Information for this article came from the CCD Working Group web page and files, National Honey Board (NHB), National Bee Loss Survey, Richard Houseman MU entomologist 573-882-7181 and Mike Brown, Missouri State Entomologist 573-751-5505.

*Author: Jim Jarman, Agronomy Specialist*

## Ice Cover Wheat Damage

When ice covers winter wheat for longer than 3 to 4 weeks, it can kill the wheat. Even though seedling wheat is dormant, there is some respiration activity to keep it alive.

The buildup of carbon dioxide and other gases from respiration under the ice can suffocate wheat. The possibility of suffocation is reduced as cracks or openings in the ice cover can allow the gasses to escape. Sleet or snow may make the ice cover porous.

A way to check the crop's survival before spring growth begins is to dig a number of plants at random. One hundred plants are often suggested. Clean the plants and split them down the middle. Healthy plants should have white to light yellow middles. If the plant centers are tan to brown, they are dead. Figure the percent of live plants.

Randomly count the number of plants per square foot in several regions of wheat fields in question. Take the average number of wheat plants and multiply by the percent of live plants. Multiply the number of live plants by 5, the average number of tillers, and then multiply by 0.5, a yield factor. The resulting number should give the potential yield in bushels. (As an example, 15 plants per square foot X 5 X 0.5 = 37.5 bushels of wheat per acre.)

Another method to determine the percentage of live wheat takes about a week and is shown in the following steps:

1. Remove the top three inches of soil containing the plant crown (typically located one to two inches below the soil surface).
2. Thaw the samples and warm to room temperature.
3. Remove soil from the roots by washing with cool water.
4. Cut off fall leaf growth to within 1 inch above the crown and roots 1 inch below the crown.
5. Rinse the crowns with cool water.
6. Place 10 wet crowns in a labeled plastic bag, inflate the bag and tie shut.
7. Place the bags in a lighted room, but not in direct sunlight.
8. Check the crowns in two days, rinse with cool water and re-inflate the bag.
9. After four days, the crown should show about two inches of new growth.
10. Plants that are not growing after six days should be considered dead when estimating survival.
11. Some plants may grow poorly and develop molds which live on dead or injured plants.
12. The above steps can be shortened by using a rag doll test. At step 6 cover crown and roots with moist but not wet paper towels. Continue with step 7, 9 and 10, skipping step 8.

Remember, winter kill can be just part of the field, so select sample areas carefully and don't try to extrapolate results too widely. Also, remember while some wheat plants may test as surviving icy conditions using the rag doll test, their condition may be weakened. Further scouting and assessment in the spring would be wise if the stand drops below 15 plants per square foot in February sampling.

Information for this article came from Robert Klein, University of Nebraska Extension Cropping Systems Specialist and Oregon State University Cereals Extension Specialist Russ Karow.

*Author: Jim Jarman, Agronomy Specialist*

## Bottom Line Tidbits: Are Options An Option For You?

A market risk management tool gaining acceptance and popularity is the option market for farm grains. This is a particularly timely topic given the significant rise in grain prices in the last few months. High market prices are of little or no value unless you take advantage of them.

An option is simply the right, but not the obligation, to buy or sell a commodity futures contract at a given price - within a given time frame. The purchaser of an option has three choices of action: 1) sell the option, 2) exercise the option, or 3) let the option expire.

Buying an option is somewhat similar to buying insurance – you pay a premium for a stated level of coverage and time. The greater the price and/or time protection – the higher the premium. The premium paid is the maximum cost the purchaser of an option will incur; i.e. there will not be any margin calls to pay regardless of the direction or amount of change in the futures price.

Options come in two “flavors”: puts and calls. An option with the right to sell a futures contract is referred to as a put option while an option with the right to buy a futures contract is known as a call option. The stated price at which the futures contract may be bought or sold is called the strike or exercise price.

An option is simply a marketing tool that has a use “at the right time – in the right place”. Purchasing an option allows producers to protect themselves from an unfavorable price movement, somewhat similar to hedging. However, unlike hedging, an option provides protection against an unfavorable price movement – while allowing producers to benefit from a favorable price movement.

Selling is an action while marketing is the plan for selling! Given today’s level of grain prices, what marketing plan do you have for your inventory and the crops you’ll produce in 2007? As a final note, if your marketing strategy is not in written form, it is probably more of a passing thought than a plan.

*Author: Parman R. Green, Agriculture Business Management Specialist*



# AG CONNECTION

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**Editorial Board:** Don Day, Managing Editor; Parman Green, Mark Stewart, Jim Jarman, Todd Lorenz, Wendy Flatt, Mary Sobba, Gene Schmitz, Wayne Crook, Randa Brunkhorst and Jim Quinn.

**Please send your comments and suggestions to the editor at:**

University of Missouri Extension  
1012 North Highway UU  
Columbia, MO 65203  
E-Mail: [daydr@missouri.edu](mailto:daydr@missouri.edu)

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